WHAT IS CLAIMED IS:

1. A mobile telecommunications system comprising at least one node through which a packet switched data session is established between a user equipment unit and a data network, and wherein the node makes a determination if an acceleration of packet transmission rate justifies a channel switch for the session and implements a channel switch in accordance with the determination.

2. The system of claim 1, wherein the node switches channel types for the session in accordance with the determination.

3. The system of claim 2, wherein the node switches the session from a common traffic channel to a dedicated traffic channel in accordance with the determination.

4. The system of claim 1, wherein the node switches the session from a dedicated traffic channel having a first transmission rate to a dedicated traffic channel having a second transmission rate in accordance with the determination.

5. The system of claim 1, wherein the node makes the determination at a beginning of the session.

6. The system of claim 1, wherein the node makes the determination when throughput of the packets reaches a packet speed threshold.

7. The system of claim 6, wherein the node makes the determination by comparing a derivative of the packet transmission rate at the packet speed threshold with a predetermined acceleration threshold.

8. The system of claim 1, wherein the node makes the determination upon detection of a predetermined pattern of interval time lengths between receipt times of packets.

9. The system of claim 8, wherein the predetermined pattern of interval time lengths between receipt times of packets is long-short-long-short justifies a channel switch for the session.

10. The system of claim 1, wherein the node (1) makes a determination whether the session is in a slow start phase, and (2) switches channel for the session in accordance with whether the session is in a slow start phase.

11. The system of claim 1, wherein the node (1) makes a determination whether a packet transmission rate of the session is indicative of a fast transmission-ramping protocol, and (2) switches channel for the session in accordance with the determination.

12. The system of claim 11, wherein fast transmission-ramping protocol is transmission control protocol (TCP).

13. The system of claim 1, wherein the node is a radio network controller node.

14. The system of claim 1, wherein the mobile telecommunications system uses wideband code division multiple access.

15. A mobile telecommunications system comprising at least one node through which a packet switched data session is established between a user equipment unit and a data network, and wherein the node (1) makes a determination whether a packet transmission rate of the session is indicative of a fast transmission-ramping protocol, and (2) switches channel for the session in accordance with the determination..

16. The system of claim 15 wherein the node switches channel types for the session in accordance with the determination.

17. The system of claim 15, wherein the node switches the session from a common traffic channel to a dedicated traffic channel in accordance with the determination.

18. The system of claim 15, wherein the node switches the session from a dedicated traffic channel having a first transmission rate to a dedicated traffic channel having a second transmission rate in accordance with the determination.

19. The system of claim 15, wherein the node makes the determination at a beginning of the session.

20. The system of claim 15, wherein the node makes the determination when throughput of the packets reaches a packet speed threshold.

21. The system of claim 20, wherein the node makes the determination by comparing a derivative of the packet transmission rate at the packet speed threshold with a predetermined acceleration threshold.

22. The system of claim 15, wherein the node makes the determination upon detection of a predetermined pattern of interval time lengths between receipt times of packets.

23. The system of claim 23, wherein the predetermined pattern of interval time lengths between receipt times of packets is long-short-long-short justifies a channel switch for the session.

24. The system of claim 15, wherein the node (1) makes a determination whether the session is in a slow start phase, and (2) switches channel for the session in accordance with whether the session is in a slow start phase.

25. The system of claim 15, wherein fast transmission-ramping protocol is transmission control protocol (TCP).

26. The system of claim 15, wherein the node is a radio network controller node.

27. The system of claim 15, wherein the mobile telecommunications system uses wideband code division multiple access.

28. A node of a mobile telecommunications system through which a packet switched data session is established between a user equipment unit and a data network, and wherein the node makes a determination if an acceleration of packet transmission rate justifies a channel switch for the session and implements a channel switch in accordance with the determination.

29. The node of claim 28, wherein the node switches channel types for the session in accordance with the determination.

30. The node of claim 29, wherein the node switches the session from a common traffic channel to a dedicated traffic channel in accordance with the determination.

31. The node of claim 28, wherein the node switches the session from a dedicated traffic channel having a first transmission rate to a dedicated traffic channel having a second transmission rate in accordance with the determination.

32. The node of claim 28, wherein the node makes the determination at a beginning of the session.

33. The node of claim 28, wherein the node makes the determination when throughput of the packets reaches a packet speed threshold.

34. The node of claim 33, wherein the node makes the determination by comparing a derivative of the packet transmission rate at the packet speed threshold with a predetermined acceleration threshold.

35. The node of claim 28, wherein the node makes the determination upon detection of a predetermined pattern of interval time lengths between receipt times of packets.

36. The node of claim 28, wherein the predetermined pattern of interval time lengths between receipt times of packets is long-short-long-short justifies a channel switch for the session.

37. The node of claim 28, wherein the node (1) makes a determination whether the session is in a slow start phase, and (2) switches channel for the session in accordance with whether the session is in a slow start phase.

38. The node of claim 28, wherein the node (1) makes a determination whether a packet transmission rate of the session is indicative of a fast transmission-ramping protocol, and (2) switches channel for the session in accordance with the determination.

39. The node of claim 38, wherein fast transmission-ramping protocol is transmission control protocol (TCP).

40. The node of claim 28, wherein the node is a radio network controller node.

41. The node of claim 28, wherein the mobile telecommunications node uses wideband code division multiple access.

42. A node of a mobile telecommunications node through which a packet switched data session is established between a user equipment unit and a data network, and wherein the node (1) makes a determination whether a packet transmission rate of the session is indicative of a fast transmission-ramping protocol, and (2) switches channel for the session in accordance with the determination..

43. The node of claim 42, wherein the node switches channel types for the session in accordance with the determination.

44. The node of claim 43, wherein the node switches the session from a common traffic channel to a dedicated traffic channel in accordance with the determination.

45. The node of claim 42, wherein the node switches the session from a dedicated traffic channel having a first transmission rate to a dedicated traffic channel having a second transmission rate in accordance with the determination.

46. The node of claim 42, wherein the node makes the determination at a beginning of the session.

47. The node of claim 42, wherein the node makes the determination when throughput of the packets reaches a packet speed threshold.

48. The node of claim 47, wherein the node makes the determination by comparing a derivative of the packet transmission rate at the packet speed threshold with a predetermined acceleration threshold.

49. The node of claim 42, wherein the node makes the determination upon detection of a predetermined pattern of interval time lengths between receipt times of packets.

50. The node of claim 49, wherein the predetermined pattern of interval time lengths between receipt times of packets is long-short-long-short justifies a channel switch for the session.

51. The node of claim 42, wherein the node (1) makes a determination whether the session is in a slow start phase, and (2) switches channel for the session in accordance with whether the session is in a slow start phase.

52. The node of claim 42, wherein fast transmission-ramping protocol is transmission control protocol (TCP).

53. The node of claim 42, wherein the node is a radio network controller node.

54. The node of claim 42, wherein the mobile telecommunications node uses wideband code division multiple access.

55. A method of operating a mobile telecommunications system comprising at least one node through which a packet switched data session is established between a user equipment unit and a data network, the method comprising:

4   (1) making a determination whether an acceleration in packet transmission rate

5   justifies a channel switch for the session; and

6   (2) switching channels for the session in accordance with the determination.

1   56.   The method of claim 55, wherein step (2) involves switching channel types

2   for the session in accordance with the determination.

1   57.   The method of claim 56, further comprising switching the session from a

2   common traffic channel to a dedicated traffic channel in accordance with the

3   determination.

1   58.   The method of claim 55, further comprising switching the session from a

2   dedicated traffic channel having a first transmission rate to a dedicated traffic channel

3   having a second transmission rate in accordance with the determination.

1   59.   The method of claim 55, further comprising making the determination at a

2   beginning of the session.

1   60.   The method of claim 55, further comprising making the determination when

2   throughput of the packets reaches a packet speed threshold.

1   61.   The method of claim 60, further comprising making the determination by

2   comparing a derivative of the packet transmission rate at the packet speed threshold

3   with a predetermined acceleration threshold.

1   62.   The method of claim 55, further comprising making the determination upon

2   detection of a predetermined pattern of interval time lengths between receipt times of

3   packets.

1   63.   The method of claim 55, further comprising making the determination upon

2   detection of a predetermined pattern of interval time lengths between receipt times of

3   packets, and wherein the predetermined pattern of interval time lengths between receipt

4   times of packets is long-short-long-short justifies a channel switch for the session.

64. The method of claim 55, wherein step (1) involves making a determination whether the session is in a slow start phase, and step (2) involves switching channels for the session in accordance with whether the session is in a slow start phase.

65. The method of claim 55, wherein the determination is made by a node of the network, and wherein the node is a radio network controller node.

66. The method of claim 55, wherein step (1) involves determining whether a packet transmission rate of the session is indicative of a fast transmission-ramping protocol.

67. The method of claim 66, wherein fast transmission-ramping protocol is transmission control protocol (TCP).

68. A method of operating a mobile telecommunications system comprising at least one node through which a packet switched data session is established between a user equipment unit and a data network, the method comprising:
(1) making a determination whether a packet transmission rate of the session is indicative of a fast transmission-ramping protocol; and
(2) switching channels for the session in accordance with the determination.

69. The method of claim 68, wherein fast transmission-ramping protocol is transmission control protocol (TCP).

70. The method of claim 68, wherein step (2) involves switching channel types for the session in accordance with the determination.

71. The method of claim 68, further comprising switching the session from a common traffic channel to a dedicated traffic channel in accordance with the determination.

72. The method of claim 68, further comprising switching the session from a dedicated traffic channel having a first transmission rate to a dedicated traffic channel having a second transmission rate in accordance with the determination.

1   73.   The method of claim 68, further comprising making the determination at a

2   beginning of the session.

1   74.   The method of claim 68, further comprising making the determination when

2   throughput of the packets reaches a packet speed threshold.

1   75.   The method of claim 74, further comprising making the determination by

2   comparing a derivative of the packet transmission rate at the packet speed threshold

3   with a predetermined acceleration threshold.

1   76.   The method of claim 68, further comprising making the determination upon

2   detection of a predetermined pattern of interval time lengths between receipt times of

3   packets.

1   77.   The method of claim 68, further comprising making the determination upon

2   detection of a predetermined pattern of interval time lengths between receipt times of

3   packets, and wherein the predetermined pattern of interval time lengths between receipt

4   times of packets is long-short-long-short justifies a channel switch for the session.

1   78.   The method of claim 68, wherein step (1) involves making a determination

2   whether the session is in a slow start phase, and step (2) involves switching channels for

3   the session in accordance with whether the session is in a slow start phase.

1   79.   The method of claim 68, wherein the determination is made by a node of the

2   network, and wherein the node is a radio network controller node.